Curriculum Vitae

Personal Data

• Name: Myung-Hwa KIM

• Languages: English, Korean

• Corresponding address:

Division of New Drug Development, Jeil Pharmaceutical Co., Ltd.

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• Citizenship: South Korea

• Current Position: Executive Director at R&D Center, Jeil Pharmaceutical Co., Ltd.

Education

Ph. D in Medicinal Chemistry, Johannes Gutenberg University, Mainz in Germany 1991 (April)

- o thesis entitled "[4+2]-Cycloadditionen von 2- und 3-Vinylindolen mit Heterodienophilen zu neuen heterocyclisch [b] anellierten und funktionalisierten Indolen".
- M.S. in Pharmacy, Johannes Gutenberg University, Mainz in Germany 1987 (Aug.)
- B.S. in Pharmacy, Duksung Women's University in Seoul/Korea 1976 (Feb.)

Experience

• May 2002 – Present Executive Director

at Division of New Drug Development, Jeil Pharmaceutical Co., Ltd. #117-1, Keungok-Ri, Baekam-Myun, Cheoin-Gu, Yongin-City, Kyunggi-do, 449-861, Korea

Research Summary:

- -Anti-tubulin agents for anticancer drugs
- -TACE inhibitor for anti-RA
- -IKK-2 inhibitor for anti-RA, anticancer
- -PARP inhibitor for the treatment of stroke

- -PARP inhibitor for anticancer agents
- -GSK inhibitor for the treatment of Alzheimer disease

• <u>Sept. 2000 – May 2002</u> General Manager

at Central Research Institute, C-TRI in Korea, 10th floor, Kowoon Institute of Technology Innovation, Suwon Univ., Whasung-gun, Kyunggi-do, Korea

Research Summary:

- -Development of immunosuppressants using natural products
- -Anti-tubulin agents for anticancer drugs

• Jan. 1994 – Sep. 2000 Senior Researcher

at Fuji Gotemba Research Labs., Chugai Pharmaceutical Co., LTD. 1-135 Komakado, Gotemba City, Shizuoka in Japan

Research Summary:

- Thymidine synthetase inhibitor for anticancer drugs
- Vitamin D derivatives for anti-psoriasis
- -Estrogen pure antagonist for the treatment of breast cancer

• July. 1991 – Dec. 1993 Postdoctoral Fellow

at Korea Institute of Science and Technology in Seoul/Korea, Hwarangno-14-gil 5, Seongbuk-gu, Seoul, Korea

Research Summary:

- Synthesis of the carbapenem antibiotics

Publications & Conferences

Publications

1. Early assessment of tumor response to JAC106, an anti-tubulin agent, by 3'-deoxy-3'- [(18)F]fluorothymidine in preclinical tumor models. Lee SJ, Kang HY, Kim SY,

- Chung JH, Oh SJ, Ryu JS, Kim SB, Kang JS, Park SK, Kim HM, Kim MH, Moon DH, Eur J Nucl Med Mol Imaging. 2011 Apr 12.
- 2. Structure based optimization of chromen-based TNF-α converting enzyme (TACE) inhibitors on S1' pocket and their quantitative structure-activity relationship (QSAR) study. Yang JS, Chun K, Park JE, Cho M, Seo J, Song D, Yoon H, Park CH, Joe BY, Choi JH, Kim MH, Han G, Bioorg Med Chem. 2010 Dec 15;18(24):8618-29.
- Synthesis of isoquinolinone-based tetracycles as poly (ADP-ribose) polymerase-1
 (PARP-1) inhibitors.
 Rhee HK, Lim SY, Jung MJ, Kwon Y, Kim MH, Choo HY. Bioorg Med Chem. 2009

Nov 1;17(21):7537-41. Epub 2009 Sep 15

- **4.** Synthesis and evaluation of tricyclic derivatives containing a non-aromatic amide as inhibitors of poly(ADP-ribose)polymerase-1 (PARP-1). Park CH, Chun K, Joe BY, Park JS, Kim YC, Choi JS, Ryu DK, Koh SH, Cho GW, Kim SH, Kim MH. Bioorg Med Chem Lett. 2010 Apr 1;20(7):2250-3. Epub 2010 Feb 8.
- **5.** Chromen-based TNF-alpha converting enzyme(TACE) inhibitors: design, synthesis, and biological evaluation. Chun K, Park SK, Kim HM, Choi Y, Kim MH, Park CH, Joe BY, Chun TG, Choi HM, Lee HY, Hong SH, Kim MS, Nam KY, Han G, Bioorg Med Chem. 2008 Jan 1;16(1):530-5. Epub 2007 Sep
- **6.** Newly discovered orally active pure antiestrogens. Kanbe Y, Kim MH, Nishimoto M, Ohtake Y, Yoneya T, Ohizumi I, Tsunenari T, Taniguchi K, Kaiho S, Nabuchi Y, Araya H, Kawata S, Morikawa K, Jo JC, Kwon HA, Lim HS, Kim HY. Bioorg Med Chem Lett. 2006 Sep 15;16(18):4959-64. Epub 2006 Jun 27.
- 7. Discovery of thiochroman derivatives bearing a carboxy-containing side chain as orally active pure antiestrogens. Kanbe Y, Kim MH, Nishimoto M, Ohtake Y, Tsunenari T, Taniguchi K, Ohizumi I, Kaiho S, Nabuchi Y, Kawata S, Morikawa K, Jo JC, Kwon HA, Lim HS, Kim HY. Bioorg Med Chem Lett. 2006 Aug 1;16(15):4090-4. Epub 2006 May 18.
- **8.** Discovery of thiochroman and chroman derivatives as pure antiestrogens and their structure-activity relationship. Kanbe Y, Kim MH, Nishimoto M, Ohtake Y, Kato N, Tsunenari T, Taniguchi K, Ohizumi I, Kaiho S, Morikawa K, Jo JC, Lim HS, Kim HY. Bioorg Med Chem. 2006 Jul 15;14(14):4803-19. Epub 2006 Mar 31.
- 9. New synthetic thiocolchicine derivatives as low toxic anticancer agents, Lee SH,

- Park SK, Kim JM, Kim MH, Kim KH, Chun KW, Cho KH, Youn JY, Namgoong SK, Arch Phar. (Weinheim). 2005 Dec; 338(12); 582-9
- **10.** An overview of anticancer agents. Kim, Myung-Hwa; Choe, Yearn Seong; Song, Jee-Seop; Kim, Wan-Joo. Fuji Gotemba Res. Lab., Chugai Pharmaceutical Co. Ltd., Shizuoka, Japan. Korean Journal of Medicinal Chemistry (1994), 4(2), 133-52.
- 11. New Diels-Alder reactions of (E/Z)-2'-methoxy-substituted 3-vinylindoles with carbo- and heterodienophiles: regio- and stereoselective access to [b]-annelated indoles and functionalized or [a]-annelated carbazoles. Pindur, Ulf; Kim, Myung Hwa; Rogge, Martina; Massa, Werner; Molinier, Michel. Dep. Chem. Pharm., Univ. Mainz, Mainz, Germany. Journal of Organic Chemistry (1992), 57(3), 910-15.
- 12. New reactions of 2- and 3-vinylindoles with azo dienophiles, diethyl mesoxalate, and nitrosobenzene: an entry into functionalized and [b]annelated indoles. Pindur, Ulf; Kim, Myung Hwa. Inst. Pharm., Univ. Mainz, Mainz, Germany. Chemiker-Zeitung (1991), 115(9), 237-40.
- 13. First reactions of vinylindoles with diethyl mesoxalate, nitrosobenzene, and chlorosulfonyl isocyanate: new functionalized and [b]annulated indoles. Pindur, Ulf; Kim, Myung Hwa. Inst. Pharm., Univ. Mainz, Mainz, Fed. Rep. Ger. Tetrahedron (1989), 45(20), 6427-38.
- **14.** New reactions of vinylindoles as heterocyclic dienes with 4-phenyl-1,2,4-triazoline-3,5-dione: non-concerted versus concerted processes. Pindur, Ulf; Kim, Myung Hwa. Dep. Chem. Pharm., Univ. Mainz, Mainz, Germany. Chimia (1990), 44(10), 339-41.
- **15.** The 3-vinylindole parent compound and its anion: new reactivity aspects. Pindur, Ulf; Kim, Myung Hwa; Eitel, Manfred. Inst. Pharm., Univ. Mainz, Mainz, Germany. Tetrahedron Letters (1990), 31(11), 1551-2.
- **16.** Locoselective [4 + 2] cycloadditions of vinylindoles with inverse electron demand: a new access of indolyl-substituted and annulated pyridazines. Pindur, Ulf; Pfeuffer, Ludwig; Kim, Myung Hwa. Inst. Pharm., Univ. Mainz, Mainz, Fed. Rep. Ger. Helvetica Chimica Acta (1989), 72(1), 65-72.
- 17. First cycloadditions of 2-vinylindoles with dimethyl 1,2,4,5-tetrazine-3,6-dicarboxylate: Diels-Alder reactions with inverse electron demand to new substituted and annelated pyridazines. Pindur, Ulf; Kim, Myung Hwa. Inst. Pharm., Univ. Mainz, Mainz, Fed. Rep. Ger. Tetrahedron Letters (1988),
- **18.** New reactions of 2-vinylindoles with azodienophiles: Diels-Alder reaction versus Michael-type addition. Pindur, Ulf; Kim, Myung-Hwa. Dep. Chem. Pharm., Univ. Mainz, Mainz, Fed. Rep. Ger. Heterocycles (1988), 27(4), 967-72.
- 19. Optimized synthesis of donor- and acceptor- substituted 2-vinylindoles. Pindur, Ulf; Kim, Myung Hwa. Inst. Pharm., Univ. Mainz, Mainz, Fed. Rep. Ger.

Patents

- 1. Novel pyrazolopyridine derivatives or pharmaceutically acceptable salts thereof, process for the preparation thereof and pharmaceutical composition comprising the same: KR2010-0124391
- 2. Novel tricyclic derivatives or pharmaceutical acceptable salts threrof, process for the preparation threrof and pharmaceutical composition comprising the same: US13/128,030, BR17621, MX/a/2011/004957, KR10-0968175
- **3.** Novel triazolopyridine derivatives or pharmaceutically acceptable salts thereof, process for the preparation thereof and pharmaceutical composition comprising the same: KR2011-0042606
- **4.** Tricyclic Derivatives or Pharmaceutically Acceptable Salts Thereof, There Preparations and Pharmaceutical Compositions Containing Them: IN233339, RU2006101987, HK1095133, EU1646608, JP4430071, AU2004249639, CA2,531,543, KR10-0667464
- **5.** Process for preparing tricyclic derivatives: KR2009-0061983, PCT/KR2010/004212
- 6. Composition for solubilization of poorly soluble tricyclic derivatives: KR2010-0060720
- 7. Novel thienopyrimidine derivatives or pharmaceutically acceptable salts thereof, process for the preparation thereof and pharmaceutical composition comprising the same: KR10-0846988
- **8.** Efficient Generation of Neural Progenitors, Neurons and Dopaminergic Neurons from Human Embryonic Stem Cells: GB 2452667, KR10-2007-0001664, PCT/KR2007/002717
- **9.** Novel Chromen-2-one based hydroxamic acid derivativeshaving anti-inflammatory activity, the preparationthereof and a composition containing the same fortreating inflammatory disease: KR10-0794515
- **10.** A Novel Alkaloid derivatives and a pharmaceutical composition containing the same: WO02100824, US7622612, JP2004529204, EP1404652
- **11.** Compound having hydroxycarbonyl-halogenoalkyl side chain: WO0142186, US6737417, JP3357356, CN1414914, AU780947, KR10-0576149
- **12.** 3-Methyl-Chromane or Thiochromane derivatives: WO0142237, US2003013756, JP2003516402, EP1240156, AU2028401, KR10-1999-0057065
- **13.** Novel Benzopyran or Thiobenzopyran derivatives: WO9965893, US6645951, RU2001101466, JP2002529372, EP1087959, CN1312803, AU756589, KR10-1998-0022212

- 14. Novel salts of entecavir: KR10-2009-0084154
- **15.** Novel Benzopyran derivatives: WO9825916, US6153768, JP3251946, EP0944613, CN1244863, AU5413498, DE69716292, ES2185054
- 16. Novel salts of adefovir dipivoxil: KR10-2009-0071220
- 17. Improved preparation method of sarpogrelate hydrochloride: KR10-2006-0037599
- **18.** Composition for preventing or treating diabetes or complications of diabetes mellitus comprising an extract of Korea angelica roots and wild garlic leaves as an active ingredient: KR2010-0077318
- 19. Method of Preparing Lansoprazole and Its Intermediate: KR10-0430575
- **20.** Extract of Angelica gigas Nakai, Ginkgo biloba L. leaves; or Composition comprising extract of Angelica gigas Nakai and Ginkgo biloba L. leaves for Alzheimer's Disease adjuvant or the pharmaceutical composition for the treatment of Alzheimer's Disease: KR2010-0098349